

## Patent claims

1. A control method and an adjustment method for a fibre web machine,  
characterised in that voice or noise that is emitting from at least from one  
section of the fibre web machine is measured continuously and frequency  
bands (df) and/or combinations of the frequency bands and the corresponding  
amplitudes thereof, which correlate state and change of different process  
values, are separated from the received measuring signals ( $f_m$ ), that the  
measuring signals are compared with reference signals ( $f_{ref}$ ), which correlate  
ideal state or desired state, and that from deviations ( $f_A$ ) of the measuring  
signals and reference signal are formed control signals, by means of which the  
measured process values are returned closer to the ideal state or the desired  
state.
2. A control method and an adjustment method, which is in accordance with  
patent claim, characterised in that for resolving the deviation ( $f_A$ ) and for  
forming the control signal the measuring signal ( $f_m$ ) is back fed in control  
system it.
3. A control method and an adjustment method, which is in accordance with  
patent claim 1 and/or 2, characterised in that emitting voice or noise is  
measured by means of a voice sensor (10) from a calendering machine of the  
fibre web machine.
4. A control arrangement and an adjustment arrangement for a fibre web  
machine, characterised in that a constant measuring of voice or noise has  
been arranged at least in one section of the fibre web machine, that a  
measuring signal ( $f_m$ ), which correlates state and change of a process value, is  
in an optional frequency band (df) and/or in an optional combination of  
frequency bands, and that a control signal is formed by comparing the  
measuring signal with the reference signal ( $f_{ref}$ ), which correlates ideal state or  
desired state, in which case the control signal can be formed by means of

deviation of the measuring signals and a reference signal ( $f_A$ ), by means of which control signal the process value can be returned closer to the ideal state or the desired state.

- 5        5.        A control arrangement and an adjustment arrangement, which is in accordance with patent claim 4, characterised in that in order to resolve the deviation ( $f_A$ ) and to form the control signal the measuring signal ( $f_m$ ) is back fed in control system.
- 10       6.        A control arrangement and an adjustment arrangement, which is in accordance with patent claim 4 and/or 5, characterised in that the provided control signal ( $f_m$ ) of a function assembly changes stepwise.
- 15       7.        A control arrangement and an adjustment arrangement, which is in accordance with patent claim 4 and/or 5, characterised in that the provided control signal ( $f_m$ ) of a function assembly changes evenly in relation to the time.
- 20       8.        A control arrangement and an adjustment arrangement, which is in accordance with patent claim 4 and/or 5, characterised in that the provided control signal ( $f_m$ ) of a function assembly changes periodically in relation to the time.
- 25       9.        A control arrangement and an adjustment arrangement, which is in accordance with any of the patent claims 4 – 8, characterised in that the emitted voice or the noise has been measured from a calendering machine (1) by means of a voice-measuring sensor (10).